Species of Concern
NOAA National Marine Fisheries Service

Atlantic halibut
Hippoglossus hippoglossus

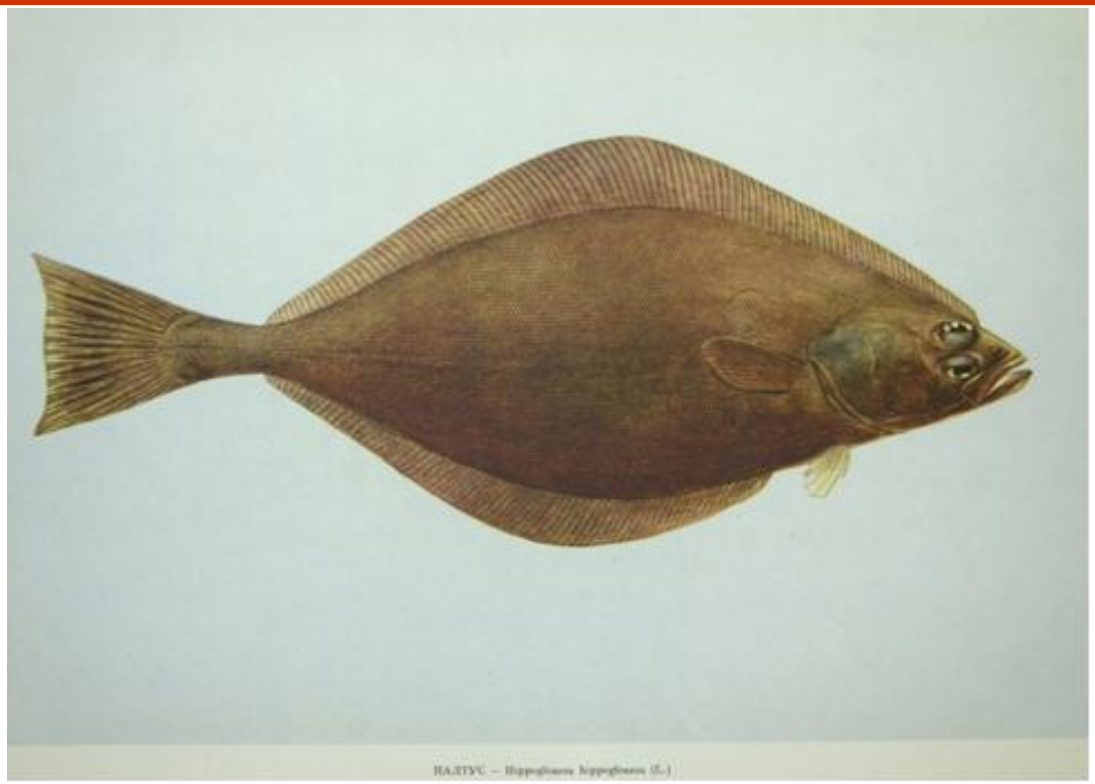

Photo credit: NOAA photo library.

KEY INFORMATION

Area of Concern
From Labrador to southern New England in the northwest Atlantic.

Year Identified as "Species of Concern"
2004

Factors for Decline
- Fishing

Conservation Designations
IUCN: Endangered
American Fisheries Society: Threatened

Current Status:

Demographic and Genetic Diversity Concerns:
Atlantic halibut are very large, with low to very-low productivity. The Northeast Fishery Science Center (NEFSC) spring and autumn survey data show that biomass within the Gulf of Maine and Georges Bank remains very low. Population size indices have fluctuated considerably since the 1960s, but have recently shown an increase from the record lows in the mid-1990s. The Gulf of Maine and Georges Bank population is considered a transboundary stock, and based on recent tagging information conservation measures may be needed from both Canada and the U.S. (Kanwit 2007).

Existing Protections and Conservation Actions:
Atlantic halibut was added to the Northeast Multispecies Fishery Management Plan (FMP) in October 1999. Amendment 9 to the FMP (1999) implemented a 1 fish halibut possession limit for both commercial and recreational (party/charter) vessels with a minimum size of 36 inches (in)(91 centimeters (cm)). The minimum size was increased to 41 in (104 cm) in 2009.

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Factors for Decline:

Atlantic halibut were heavily overfished in the 19th century (Brodziak 2000). Landings data are available from the late 1800s to the present. These data indicate that landings have declined from a high of 4,908 metric tons (mt)(10.8 million pounds) in 1896 to record lows of 17-20 mt (37,478-44,092 pounds (lbs)) between 1998 and 2000. Though annual landings generally averaged 75 mt (165,346 lbs) between 1975 and 2010, they have increased from the record lows in 1998 and 2000 to 60 mt (132,267 lbs) in 2009 (Blaylock and Legault 2012). Estimated biomass has increased to close to 1,700 mt (3.7 million lbs) in 2010 from around 400 mt (881,849 lbs) in the mid-1990s (Blaylock and Legault 2012). According to Mayo and Terceiro (2005), in 2004, 36% of the total landings (9 mt (19,841 lbs) were landed by U.S. fishermen while the remainder (16 mt (35,273 lbs)) was landed by Canadian fishermen. Exploitation rate indices (annual landings/5-year moving average of survey index) suggested that exploitation rates were relatively stable between the 1970s and 1980s and declined in the 1990s (Mayo and Terceiro 2005). Though Canadian discards were not available, total catch, including US discards, increased from 18 mt (39,683 lbs) in 1998 to 107 mt (235,894 lbs) in 2009 (Blaylock and Legault 2012). The Gulf of Maine-Georges Bank Atlantic halibut stock remains **overfished**, but overfishing is not occurring (Blaylock and Legault 2012).

Brief Species Description:

Atlantic halibut can be distinguished from other right-eyed flounders by their large size, concave caudal fin, large, gaping mouth, and arched lateral line. This is a long lived species that is slow to mature. Average age at maturity is about 10 years. This is one of the largest fish found in the Gulf of Maine, surpassed only by swordfish, tuna, and some larger sharks. The largest halibut recorded was taken off Cape Ann and weighed 620 lbs (280 kg) eviscerated. These fish live in coastal to upper slope areas. According to Collette and Klein-MacPhee (2002), these large fish are rare; full grown females average 100 to 150 lbs (45.5 to 68 kg) while males tend to be smaller. Females are batch spawners, producing several batches of eggs each year. In Canadian waters, Atlantic halibut spawn from late winter to early spring, while spawning can last through September for fish from Georges Bank to the Grand Banks (Collette and Klein-MacPhee 2002). Fish up to 12 in (30 cm) in length feed almost exclusively on invertebrates, fish 12 - 31.5 in (30-80 cm) in length feed on both invertebrates and fishes, and those greater than 31.5 in (80 cm) feed almost exclusively on fishes (Collette and Klein-MacPhee 2002).

Photo credit: Marine Biological Laboratory.

References:

Blaylock, J. and C. Legault. 2012. Groundfish Assessment Updates (Section M-Atlantic Halibut). Northeast Fisheries Science Center Reference Document 12-06. Assessment or Data Updates of 13 Northeast Groundfish Stocks through 2010.

Brodziak, J. 2002. A report of the Groundfish Assessment Review Committee. In: Assessment of 20 Northeast Groundfish Stocks through 2001 - Atlantic halibut. NEFSC, Woods Hole, MA. p. 206.

Collette, B.B. and G. Klein-MacPhee. 2002. Fishes of the Gulf of Maine. Smith Inst Press. Washington.

Kanwit, J.K. 2007. Tagging results from the 2000-2004 Federal Experimental Fishery for Atlantic Halibut (*Hippoglossus hippoglossus*) in the Eastern Gulf of Maine. Journal of Northwest Atlantic Fishery Science 38:37-42.

Mayo, R.K. and M. Terceiro, (eds). 2005. NEFSC Ref. Doc. 05-13.

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